MODIS sensor Working Group (MsWG) Meeting Summary

Jan. 28, 2009

Attendance: Gary Toller, Bill Barnes, Aisheng Wu, Junqiang Sun, Gerhard Meister, Gene Eplee, Ben Ripman, Hongda Chen, Liqin Tan, Zhengming Wan, Chris Moeller, Brian Wenny

Scheduled Agenda

Item 1: Recent L1B LUT delivery

- Terra forward update - 5.0.40.16 (01/23/09) - m1, RVS & QA

- Aqua forward update -5.0.35.9 (01/15/09) - m1, RVS & dn sat ev

Item 2: Instrument status

- Terra and Aqua MODIS are in nominal operations.

- Terra non-recoverable data loss: Terra experienced some contact errors on 2009/013 (01/13/09) resulting in a small data loss from 10:17:09 to 10:20:18.
- The Aqua SSR partition 6 anomaly was successfully corrected with a hardware fix implemented and validated on 2009/028 (01/28/09) at ~19:27. No data loss is expected.

Item 3: MCST recent activities

- An alternative approach to deriving RVS using Earth View data was developed and test Collection 6 LUTs were prepared and provided to the Ocean group.
- Collection 6 status integration & testing of the L1B code is underway and due to be completed soon. Science testing is likely to begin in early February.
- The Atmosphere group requested a special offline QA LUT for use in the destriping and direct broadcast data processing. A time-dependent LUT containing information on the level of noise in TEB detectors was compiled for both instruments and delivered for testing.

Item 4: Around the Table

- Chris presented results of analysis of Aqua AIRS-MODIS radiometric comparisons in an investigation of MODIS Band 33-36 biases (with respect to AIRS) – with a focus on Band 35. Using collocated spatially uniform scenes Dave Tobin previously demonstrated that a spectral shift of 16nm in the MODIS B35 bandpass produces consistent agreement between AIRS and MODIS over all scene temperatures. Chris investigated the possibility of an out-of-band (OOB) contribution for these bands as an alternate explanation for the observed bias. It was found that an OOB leak in CO₂ sensitive region can remove the scene temperature bias in the AIRS-MODIS comparisons. The mechanisms responsible for either a spectral shift or an OOB leak are not known. No evidence of a spectral shift or OOB leak is seen in the prelaunch measurements. Bill suggested that such a large spectral shift is unlikely, however an OOB leak in the blocking filters is possible – and if so, this might be seen in other the bands. Chris does plan to extend the analysis to B33, 34 & 36 to check if similar bias corrections are seen.

Next Meeting: ~February 11, 2009